

REMARKS

Claims 4, 5, 12, 13, and 15 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Amendments have been made to the claims along the lines suggested by the Examiner. Reconsideration and withdrawal of the Section 112 rejections in light of the foregoing amendments and these comments is respectfully requested.

Claims 1-4 and 6-11 are rejected under 35 U.S.C. 102(b) as being anticipated by Ryan et al. Claims 1-11 and 12-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ryan et al. These grounds of rejection are respectfully traversed. Claim 1 has been amended to recite that the solvent used in the present process is alcohol-free. The Ryan et al. process requires the use of ethanol. Specifically, the Summary of the Invention recites that the proteins are extracted "in an aqueous/alcohol extraction medium such as dilute formic acid and 20% ethanol. The presence of the ethanol in the extraction medium converts the otherwise pasty homogenate to a smooth flowing alcohol extract that is easy to manipulate and particularly easy to filter" (page 2, line 29 to page 3, line 3; see also similar language on page 5, lines 5-8). Further, "[h]eating in the presence of alcohol denatures most of the unwanted proteins in the alcohol extract, and subsequent cooling leads to formation of a precipitate phase" (page 3, lines 4-6). On page 5, lines 10-12, it states the "In the present invention the extraction medium is comprised of a solution having an aqueous portion and an alcohol portion" wherein the aqueous portion solubilizes the proteinase inhibitors and the alcohol portion assists in the precipitation of macromolecules and also that certain proteinase inhibitors remain soluble in solutions containing alcohol (see second full paragraph on page 5). Further, in the paragraph bridging pages 5 and 6, Ryan et al. discuss a method for selecting the alcohol type and concentration that yields the highest specific activity. It also states "[a]ddition of alcohol in this manner (i.e., adding the alcohol during the homogenation step) is particularly useful for extracts prepared from potato tubers because the ethanol changes the consistency of the homogenate from a thick starchy paste to a smooth flowing alcohol extract (page 6, lines 7-10). Down the page, it recites that "[a]lcohol promotes the denaturation of many proteins, especially in the presence of heat" (page 6, lines 22-23). Many other references to the criticality of alcohol to the Ryan et al. process are present.

Ryan et al. teaches nothing whatsoever about an extraction process that does not include alcohol. It cannot anticipate nor make obvious the present invention as defined by the amended claims which recite the use of an alcohol-free solvent. Reconsideration and withdrawal of the Section 102 rejections of claim 1-4 and 6-11 and the Section 103(a) rejections of claims 1-11 and 13-16 in light of the foregoing claim amendments and these remarks is respectfully requested.

Claim 12 is rejected under Section 103(a) as being unpatentable in view of Ryan et al. and further in view of Borud. Given that the claims have been amended to be patentably distinguishable from the base Ryan et al. reference, claim 12 is also patentable over Ryan et al. in combination with Borud. Reconsideration and withdrawal of the Section 103(a) rejection of claim 12 in light of the foregoing claim amendments and these remarks is respectfully requested.

The application has been amended to correct minor informalities, to further distinguish the application over the prior art, and to more particularly point out and distinctly claim the subject matter which Applicant regards as the invention so as to place the application, as a whole, into a prima facie condition for allowance. Great care has been taken to avoid the introduction of new subject matter into the application as a result of the foregoing modifications.

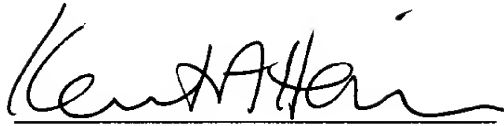
Accordingly, the purpose of the claimed invention is not taught nor suggested by the cited references, nor is there any suggestion or teaching which would lead one skilled in the relevant art to combine the references in a manner which would meet the purpose of the claimed invention. Because the cited references, whether considered alone, or in combination with one another, do not teach nor suggest the purpose of the claimed invention, Applicant respectfully submits that the claimed invention, as amended, patentably distinguishes over the prior art, including the art cited merely of record.

Based on the foregoing, Applicant respectfully submits that its claims 1-16, as amended, are in condition for allowance at this time, patentably distinguishing over the cited prior art. Accordingly, reconsideration of the application and passage to allowance are respectfully solicited.

The Examiner is respectfully urged to call the undersigned attorney at (515) 288-2500 to discuss the claims in an effort to reach a mutual agreement with respect to claim limitations in the present application which will be effective to define the patentable subject matter if the present claims are not deemed to be adequate for this purpose.

Respectfully submitted,

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A handwritten signature in dark ink, appearing to read "Kent A. Herink", written over a horizontal line.

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